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EXAMINER

GILLESPIE, BENJAMIN

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Note

Continuation of Section 3: The proposed amendment filed 7/1/2009 will NOT be entered because it would require further consideration on the examiner's part. Specifically, claims 2-17 and 24-25 were never previously considered with the hydrogel-forming polymer particle (a) comprising a partially neutralized polyacrylic acid.

Continuation of Section 11: Applicants' remarks concerning the rejection of claims 1-17 and 23-25 have been considered but are not persuasive.

First, applicants argue the claimed invention has not been rendered obvious by the prior art because the secondary reference Allen et al 5,786,429 fail to teach dendritic polymer, and instead "merely an intralinked" polymer – the examiner disagrees.

While it is noted that the polymer listed in figure 1 of Allen et al may not reflect a *starburst* dendrite, it is important to note that types of dendritic polymers other than said *starburst* dendrite exist (See Dvoric et al "Molecules that grow like trees" – page 37). The table at the top of page 37 of Dvoric et al shows "dendritic" encompasses

- (a) random hyperbranched polymers
- (b) dendritic grafted polymers, and
- (c) *starburst* polymers

With the relied upon polymers of Allen et al correspond polymer (a). Thus, contrary to applicants' assertions, the position is maintained that Allen et al teach dendritic polymers to the extent it is limited by claim 1. Please note that Dvoric et al is only relied upon to provide

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background info on the state of the art but is not actually used or required in the rejections of record.

Second, applicants argue the claimed invention has not been rendered obvious by the prior art because the secondary teachings of Kobayashi et al – which teach calcium phosphate as a suitable additive in analogous absorbent compositions – also require the presence of fibrous material and "[p]ersons skilled in the art therefore would have no incentive to apply a water-insoluble inorganic particle, while omitting the fibrous material, with any reasonable expectation of providing a useful hydrogel-forming particle.

In response, it is noted the absorbent composition of Kobayashi et al comprises both calcium phosphate and fibrous material, however, this does not render the secondary teachings incompatible with the primary teachings of Goldman et al. Specifically, Goldman et al teach on column 23 lines 14+ that the hydrogel preferably contains fibrous material – wherein said fibrous material is the same as disclosed by Kobayashi et al (See Goldman et al – col 24 lines 21-22 and 66-67). Thus the position is maintained that it would have been obvious to include calcium phosphate in the hydrogel of Goldman et al since it is disclosed by Kobayashi et al as being useful in enhancing absorbency for compositions based on acrylic polymer and fibrous material.

Finally, applicants argue the claimed invention has not been rendered obvious by the prior art because the motivation to use dendritic polymers based on 2,2'-dimethylolpropionic acid is "irrelevant" since a "toughening affect" may impair the hydrogel's ability to absorb aqueous media.

In reply, the motivation gleaned from Sorensen et al is not "irrelevant" since one of ordinary skill would understand that *crosslink density* controls a hydrogel's ability to swell.

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Furthermore, when a specific crosslink density is selected by the user (to optimize the amount of desired swelling), one would be motivated to maintain that specific crosslink density since reduction would change the swelling behavior or even worse cause the hydrogel to disintegrate in the aqueous medium. Choosing a material that is “tough” will help prevent the loss of critical crosslinks and therefore help the user maintain optimum performance as well as prevent unwanted disintegration.

Finally, if applicants’ maintain that claim 2 has not been rendered obvious by the prior art, the examiner would like to point out that claim 1 is still rendered obvious by Goldman et al in view of Allen et al and Kobayashi et al – independent claim 1 is still not in condition for allowance.

/Benjamin J Gillespie/

Examiner, Art Unit 1796

/Vasu Jagannathan/

Supervisory Patent Examiner, Art Unit 1796